## COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

SOUTH CENTRAL BELL TELEPHONE )
COMPANY'S PROPOSED AREA CALLING ) CASE NO. 91-250
SERVICE TARIFF )

## GRDER

IS ORDERED that South Central Bell Telephone Company IT ("South Central Bell") shall file the original and 12 copies of the following information with the Commission, with a copy to all parties of record. Each copy of the data requested should be placed in a bound volume with each item tabbed. When a number of required for an item, each sheet should be sheets are appropriately indexed, for example, Item 1(a), Sheet 2 of 6. Include with each response the name of the witness who will be questions relating to the responsible for responding to information provided. Careful attention should be given to copied material to ensure that it is legible.

The information requested is due no later than November 14, 1991. If the information cannot be provided by this date, a motion for an extension of time must be submitted stating the reason for the delay and the date by which the information can be furnished. Such motion will be considered by the Commission.

1. Concerning South Central Bell's motion to deviate from rules received by the Commission July 12, 1991.

- a. Referencing the table on page 3, provide a revenue comparison illustrating current revenues and expected revenues resulting from the proposed, as outlined on page 2, LMS Banding guidelines for the following categories:
  - (1) current local measured service customers.
  - (2) current remote call forwarding customers.
  - (3) current volume usage measured rate customers.
- (4) current customers not using local measured. service.
- b. If the numbers of customers in each of the above categories are expected to change, provide a mathematical and written explanation explaining how changes have been forecast. Also, if they are not expected to change, explain why not.
  - 2. On page 4 concerning the category (2) Non-ACS Customers.
- a. Does South Central Bell mean customer rates or customer bills for local service or bills or both could possibly increase? If customer bills are going to change, provide an explanation detailing the expected changes, by customer class for ACS and non-ACS customers.
- b. The last sentence in the section states, "The net effect is expected to be minimal since as many, or more, subscribers will likely place shorter distance calls as will subscribers who place longer calls."
- (1) How much money is implied by minimal and does this represent a positive or negative revenue change for South Central Bell?

- (2) Provide an analysis of which customers are expected to make shorter calls as a result of the change to the ACS plan and what assumptions have been made that would lead to this conclusion?
- (3) Provide an analysis of which customers are expected to make longer distance calls as a result of changing to the ACS plan and what assumptions have been made that would lead to this conclusion?
- c. Has South Central Bell structured the ACS plan such that there are economic disincentives or incentives for small businesses or large local businesses to remain a non-ACS customer? If the answer is yes, then provide an explanation. Fully describe each of the following scenarios:
- (1) a local business has an incentive to switch plans.
- (2) a local business will not care which plan is chosen.
- (3) a local business has no incentive to switch plans.

Explain the scenarios for businesses of similar size.

- d. Will the ACS proposal be attractive to non-LMS customers? Provide a detailed explanation of the incentives for a non-LMS customer to switch to the ACS plan.
- e. There appear to be inconsistencies contained in the community of interest section. There are instances where exchanges with a social relationship tie to another exchange that is not included in the proposed new exchange. For example New

Haven is contiguous to the Lebanon Junction exchange, but has no economic or societal relationship. Shephardsville is contiguous and has a societal relationship with Lebanon Junction. Why is New Haven included in the proposed exchange and Shephardsville not included? This type of exclusion occurs more than once. Provide an explanation as to why an exchange with either a societal or economic relationship with the exchange of interest is not included in the proposed exchange for each case that occurs.

- 3. Concerning attachment 2, the KY Area Calling Service Price-out.
- a. Provide the model/spreadsheet used to conduct the price-out study complete with a detailed explanation of the mechanics, assumptions, variables, variable derivations, as well as any other pertinent information necessary for understanding the model.
- b. Why is the customer choice data taken from the North Carolina plan instead of the Alabama plan, which is used to derive another part of the model? What are the differences between the North Carolina and Alabama plans that prevent them from being used interchangeably for model development purposes?
- c. It seems reasonable to assume that if Alabama and Kentucky are alike enough for the model take rate assumptions, the customer choice data by option from Alabama should also be applicable to Kentucky. How do the Kentucky model results change if the Alabama plan is used to derive the customer choice data by option and the resulting elasticities, as well as the take rate assumptions? Provide the results.

- d. Answer question C again using North Carolina data instead of Alabama data.
- e. Provide a detailed mathematical and written explanation of the elasticities used in the submitted Kentucky study.
- f. Provide a detailed point-by-point comparison highlighting the similarities and differences of the Alabama, North Carolina, and Kentucky plans.
- g. Refer to the overview filed under tab 1 of the application.
- (1) Fully explain the rationale underlying and the effects of changing toll rating from a rate center to rate center basis to a wire center to wire center basis for flat rate customers placing calls from the limited local calling area to points in the extended local calling area, using illustrative examples.
- (2) What is the net revenue impact of this change in call rating? Provide a complete calculation.
- (3) Fully explain the planned change in bill format for call detail for toll-rated calls within the extended calling area.
- (4) Provide any econometric or price sensitivity analysis underlying the flat rate access element for area calling service, including an explanation of assumptions and a summary of the inputs and results of the analysis. If no such analysis exists, provide a complete description of the pricing strategy underlying these rates.

- (5) Provide any econometric or price sensitivity analysis underlying the usage caps applicable to area calling service, including an explanation of assumptions and a summary of the inputs and results of the analysis, including a summary of the analysis. If no such analysis exists, provide a complete description of the pricing strategy underlying the usage caps.
- (6) Provide any econometric or price sensitivity analysis underlying the usage rates applicable to area calling service, including an explanation of assumptions and a summary of the inputs and results of the analysis. If no such analysis exists, provide a complete description of the pricing strategy underlying the usage rates.
- excluding two-party service, shared tenant service, and companyowned or customer-provided public telephone service from subscription to area calling service. Also, provide any econometric or other analysis upon which these exclusions are based, including an explanation of assumptions and a summary of the inputs and results of the analysis.
- (8) Provide any econometric or price sensitivity analysis underlying the premium flat rates for unlimited calling within the extended local calling area, including an explanation of assumptions and summary of the inputs and results of the analysis. If no such analysis exists, provide a complete description of the pricing strategy underlying the premium flat rates.

- 4. Refer to the outline of the filing package filed under tab 1 of the application.
- a. Fully explain the effects of changing usage rates for existing local measured service, remote call forwarding, and volume usage measured rate service subscribers, using illustrative examples.
- b. What is the net revenue impact by service category for this change in call rating. Provide complete calculations.
- 5. Refer to the community of interest discussion filed under tab 6 of the application, page 1-1. Fully explain the statement that area calling service will result in "those who use more, pay more; those who use less, pay less." That is, what features of the proposal obtain this result and what economic justification underlies this result?
- 6. Refer to the community of interest discussion filed under tab 6 of the application, page 1-3, where is listed the areas and exchanges involved in the current proposal. Does South Central Bell have a position on or a specific proposal to make regarding consumer requests made to the Commission for the addition of other exchanges to the current proposal?
- 7. Refer to the discussion of the area calling service price-out filed under tab 7 of the application.
- a. The discussion indicates that "The price-out was performed as a statewide study with all 22 mile toll converting to local." Provide a price-out by exchange for each exchange affected by this tariff filing, including a comparison of present and proposed revenue by service category. Fully explain any

assumptions used regarding customer migration and price elasticity.

- b. Consistent with the parameters of Item a above, provide a price-out comparing the proposal with and without area calling service usage caps.
- c. The discussion also indicates that "Usage rates were set to cover the incremental usage costs from the 1988 LIUC cost study and to provide a 70% to 75% price reduction from the toll rates." Provide the results of the 1988 or more current long-run incremental usage cost study, including an explanation of assumptions and a summary of the inputs and results if the study. Also, provide an analysis showing whether the results of the study are consistent with targeted toll rate discounts. Also, if no more current study is available, provide an analysis of changes in plant investment and changes in traffic sensitive relative to non-traffic sensitive costs since 1988 that might change the results of the study.
- d. The discussion also indicates that "Access line rates were set at a level required to meet the revenue requirement remaining after subtracting Usage Based Pricing (UBP) usage revenues from flat rate local plus toll revenues for a universal UBP plan." First, explain the meaning of the clause "toll revenues for a universal UBP plan." Second, provide the mathematical calculations showing access line rate developed as proposed. Third, provide the mathematical calculations showing access line rate development consistent with the parameters of item a.

- e. The discussion also indicates that "To account for revenue impacts of an optional plan, the calculated access line rates were increased approximately \$1.00." Provide a complete explanation of the "revenue impacts of an optional plan" and how the \$1.00 additive addresses these impacts.
- f. The discussion also indicates that "Revenue neutrality for this filing means that offering this plan will not create any additional revenue requirement on other customers." First, provide the mathematical calculations showing revenue neutrality under the area calling service plan as proposed. Second, provide the mathematical calculations showing revenue neutrality under the area calling plan consistent with the parameters of Item a.
- g. The discussion also indicates that "The revenues and cost savings generated by this plan will offset any additional costs caused by the plan." Provide an itemization of the revenues and cost savings generated by the plan, separately, and the additional costs caused by the plan.
- h. The discussion also indicates that "The revenue neutrality is based on a statewide offering with extended local calling covering an average of 22 miles. Any particular exchange could vary greatly from the statewide averages." Provide a table by exchange for each exchange included in the current proposal that shows the absolute deviation from the statewide averages and tests the deviation for statistical significance.
- i. The discussion also indicates that "Local and toll usage distribution tables were established for residence,

business, PBX, and ESSX customers from a sample of offices selected for recordings as well as SLUS data." First, provide the referenced usage distribution tables, including an explanation of assumptions and a summary of the inputs and results. Second, identify the offices selected for recordings, indicate whether or not they were randomly selected, and provide a descriptive profile of each office selected for recordings relative to other offices in the intrastate universe. Third, provide a brief description of subscriber line usage study, including inputs to SLUS, identify the SLUS data used to create the usage distribution tables, and indicate whether it was used in addition to data from office recordings or used to modify data from office recordings. If the SLUS data was used in addition to data from office recordings, fully explain the impact of the additional data on results from office recordings. If the SLUS data was used to modify data from office recordings, fully explain how its was used to modify data from office recordings and the impact of such modification on the results from office recordings.

j. The discussion also indicates that "Applying take rates form the Alabama plan, a model was developed to project the probabilities for each group of customers to subscribe based on the current amount of toll within 22 miles." Provide a complete description of the consumer choice model, including an explanation of assumptions and a summary of the inputs and results of the model. Also, provide a table showing the probability for each group of consumer to subscribe to area calling service.

- k. Fully explain the meaning of the statement that "While it is anticipated that the take rates for the Kentucky plan will be close to those observed in Alabama, it is expected that more of the subscribers will select the usage based option in Kentucky." Also, reconcile the statement with item j. Also, what is the expected additional take rate in Kentucky and is it reflected in the consumer choice model or is the take rate underestimated in the area calling service price-outs?
- 1. Fully explain the meaning of the statement "the model includes an additional factor for customer choice based on the local revenue impacts of choosing UBP." Also, reconcile the statement with Items j and k, and identify the "local revenue impacts of choosing UBP."
- m. The discussion also indicates that "Customer choice data by option from the North Carolina plan was used to develop the option selection criteria for the model." Specify the options and option selection criteria. Also, provide a diagram showing and explaining all logical steps in the consumer choice model with reference to this item, Items j, k, and l, and any other relevant variables.
- 8. Provide any econometric or price sensitivity analysis that underlies the usage discounts proposed for each service option in the application, including an explanation of assumptions and a summary to the inputs and results of the analysis. If no such analysis exists, fully explain the pricing strategy that underlies the each proposed discount plan.

Done at Frankfort, Kentucky, this 4th day of November, 1991.

PUBLIC SERVICE COMMISSION

For the Commission

ATTEST:

Executive Director